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# THE EXTENSION HORTICULTURIST

March 1, 1924.

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\* Elimination of waste through simplified prac- \*  
\* tices, an outgrowth of the European War, promises to \*  
\* revolutionize every branch of industry in the United \*  
\* States and to work wonders in the standardization of \*  
\* farm equipment and operations. The term "Simplified \*  
\* Practice" has been adopted by the U. S. Department of \*  
\* Commerce to designate all forms of standardization \*  
\* which tend to simplify the manufacture, handling and \*  
\* use of supplies and equipment. \*

\*  
\* In view of the fact that the purchasing power \*  
\* of the American farmer is about Nine Billion Dollars \*  
\* annually, the application of simplified practices to \*  
\* industry is certain to result in an enormous saving \*  
\* to the agricultural interests of the country. Just \*  
\* how far simplified practices, or standardization, can \*  
\* be applied to extension teaching and to the conduct \*  
\* of demonstration work, remains to be determined but \*  
\* the idea has great possibilities. \*

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Office of Horticultural Investigations  
and Extension Service Cooperating,  
U. S. Department of Agriculture,  
Washington, D. C.

# THE HISTORY OF THE UNITED STATES

OF AMERICA

BY JAMES M. SMITH, LL.D., OF THE UNIVERSITY OF CHICAGO

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. IN TEN VOLUMES. VOL. I. THE DISCOVERY AND SETTLEMENT OF THE COUNTRY. FROM 1492 TO 1789.

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. IN TEN VOLUMES. VOL. II. THE REVOLUTIONARY PERIOD. FROM 1789 TO 1800.

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. IN TEN VOLUMES. VOL. III. THE PERIOD OF CONSTITUTIONAL DEVELOPMENT. FROM 1800 TO 1820.

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. IN TEN VOLUMES. VOL. IV. THE PERIOD OF NATIONAL DEVELOPMENT. FROM 1820 TO 1840.

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. IN TEN VOLUMES. VOL. V. THE PERIOD OF NATIONAL DEVELOPMENT. FROM 1840 TO 1860.

## Simplified Practices.

Members of the executive staff and specialists who had the pleasure of listening to Mr. R. M. Hudson, Division of Simplified Practice, Bureau of Standards, Department of Commerce, at the regular weekly specialist's conference held on February 26, could not help being impressed with the wonderful possibilities for the elimination of lost motion in all extension work. Mr. Hudson stated that the adoption of simplified practices by manufacturers was a war time necessity and had proven of such immense value as to become generally adopted in many lines of manufacturing and merchandising activities. The service that is being performed by the Department of Commerce through its Division of Simplified Practice is of an educational nature and not being forced upon the various lines of industry. The heads of the various industries, however, have not been slow to recognize the benefits to be derived through the standardization of their work and are cooperating with the Department of Commerce in still further standardization. For example, in the matter of wrenches used in connection with farm implements put out by one manufacturer, it has been found possible to reduce the number to four without impairing their usefulness. This firm also reduced the number of styles of singletrees used on its implements from twenty-one to one.

Recently, there was held in Washington a conference of representatives of the screw, thread, bolt and nut manufacturers, the object being to adopt definite standards for all sizes of bolts so that all nuts and bolts of a given diameter will have the same size and number of threads to the inch and be completely interchangeable. In addition, all nuts of a given size would have the same outside dimensions and one wrench would serve for all, thus eliminating a great many varieties and special sizes of wrenches. As applied to farm implements, this would mean the elimination of special parts, making it possible to repair a machine of a given make with parts of another, and all bolts, screws and nuts of the same size would be interchangeable. Mr. Hudson explained that the manufacturers of agricultural implements had in the past considered it to their advantage to avoid this interchangeability of parts, but that they have now come to realize the desirability of standardization. The greatest saving thus far has been brought about by the standardization of lumber sizes and grades.

Just how far this matter of simplified practice and standardization can be applied in extension teaching remains to be seen, but it stands to reason that the field for improvement is just as great as in the industries. In the case of manufactured articles, the reduction in the number of styles, finishes and dimensions in the various parts, means a corresponding reduction in the stock that must be carried by the supply houses and in the amount of capital tied up in this stock. Applied to actual farm practices, it will mean the greatest simplicity in the operation and repair of standard farm equipment. Applied to fertilizers, dairy feeds, fencing, building materials, and all supplies used by the farmer, it will mean greater simplicity in the handling and use of all these commodities. Tools will become adapted to a wider range of usefulness and a smaller number of special implements, many of which are now used but a few days each year, will be required.

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Simplified practice applied to the work of the state extension specialists in horticulture will result in economy in miles traveled, in the days spent in the field, in the number of letters written, in the number of bulletins and circulars distributed and a general economy of effort. It will give the specialists more time to read and inform themselves upon the latest and best methods and enable them to conserve their physical energy and make the work more effective. Mr. Hudson's presentation was of so great interest that we are considering reproducing it as a supplement to the "Extension Horticulturist."

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### Long Period Programs of Work.

Following our plan to give the five and ten-year plans of horticultural extension work, we have the following from Mr. A. L. Ford, Specialist in Entomology and Horticulture for the State of South Dakota:

"I am sending you herewith a brief outline of our long time program for home orchards in South Dakota. I am sure you realize that commercial orcharding cannot yet be recommended in South Dakota. We are working only on the home orchards. There are only two or three commercial fruit men in the state and those are in the Black Hills section."

#### APPLES:

##### First Year - - -

- a. Selection of varieties as per the approved fruit list of the State Horticultural Society.
- b. Location of orchard site.
- c. Planting (demonstration).
- d. Pruning of newly set trees (demonstration).
- e. Cultivation.

##### Second Year - - -

- a. Pruning (demonstration).
- b. Top working (demonstration).
- c. Continued cultivation.

##### Third Year - - -

Same as second year.

##### When trees come into bearing - - -

- a. Spraying (demonstration).
  1. For codling moth.
  2. For apple scab.
  3. For apple maggot.
  4. Organization of spray rings.
  5. Home storage of fruits.
  6. Pruning.
    - a. To remove disease.
    - b. To remove congestion.
    - c. To maintain balanced tree.

1. The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for arbitrary values of the parameters  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta = 1$  is satisfied. In this case the solutions are unique and are given by the formulas

$$x = \frac{1}{\alpha} \ln \frac{1}{1 - \alpha} \quad \text{and} \quad y = \frac{1}{\beta} \ln \frac{1}{1 - \beta} \quad (2)$$

where  $\ln$  is the natural logarithm. If the condition  $\alpha + \beta = 1$  is not satisfied, then the system has no solutions. In this case the solutions of the system are given by the formulas

$$x = \frac{1}{\alpha} \ln \frac{1}{1 - \alpha} \quad \text{and} \quad y = \frac{1}{\beta} \ln \frac{1}{1 - \beta} \quad (3)$$

where  $\ln$  is the natural logarithm. If the condition  $\alpha + \beta = 1$  is not satisfied, then the system has no solutions. In this case the solutions of the system are given by the formulas

$$x = \frac{1}{\alpha} \ln \frac{1}{1 - \alpha} \quad \text{and} \quad y = \frac{1}{\beta} \ln \frac{1}{1 - \beta} \quad (4)$$

where  $\ln$  is the natural logarithm. If the condition  $\alpha + \beta = 1$  is not satisfied, then the system has no solutions. In this case the solutions of the system are given by the formulas

$$x = \frac{1}{\alpha} \ln \frac{1}{1 - \alpha} \quad \text{and} \quad y = \frac{1}{\beta} \ln \frac{1}{1 - \beta} \quad (5)$$

where  $\ln$  is the natural logarithm. If the condition  $\alpha + \beta = 1$  is not satisfied, then the system has no solutions. In this case the solutions of the system are given by the formulas

$$x = \frac{1}{\alpha} \ln \frac{1}{1 - \alpha} \quad \text{and} \quad y = \frac{1}{\beta} \ln \frac{1}{1 - \beta} \quad (6)$$

where  $\ln$  is the natural logarithm. If the condition  $\alpha + \beta = 1$  is not satisfied, then the system has no solutions. In this case the solutions of the system are given by the formulas

$$x = \frac{1}{\alpha} \ln \frac{1}{1 - \alpha} \quad \text{and} \quad y = \frac{1}{\beta} \ln \frac{1}{1 - \beta} \quad (7)$$

where  $\ln$  is the natural logarithm. If the condition  $\alpha + \beta = 1$  is not satisfied, then the system has no solutions. In this case the solutions of the system are given by the formulas



PLUMS:

First Year- - -

- a. Selection of varieties as per the approved fruit list of the State Horticultural Society.
- b. Location of orchard site.
- c. Planting (demonstration)
- d. Pruning newly set trees (demonstration).
- e. Cultivation.

Second Year - - -

- a. Cultivation.
- b. Thinning (sand cherry crosses).
- c. Spraying (sand cherry crosses).

Third Year - - -

- a. Cultivation.
- b. Thinning and spraying.
- c. Pruning (sand cherry crosses).

Future Years - - -

Same as third year.

STRAWBERRIES:

First Year - - -

- a. Selecting varieties.
- b. Setting plants (demonstration).
- c. Cultivation and Irrigation.
- d. Care of blossoms and runners.
- e. Mulching.

Second Year - - -

- a. Picking and marketing locally (boys and girls club).
- b. Fertilizing.
- c. Mulching.

Third Year - - -

Same as second year plus renewal of the patch.

We are also pushing raspberries, gooseberries, currants and the Beta grape.

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The following plan of work in vegetable extension in Kansas was received from Mr. E. A. Stokdyk, Extension Plant Pathologist.

I. First Year - - -

1. Demonstrations on the control of plant diseases.
  - a. In the field
  - b. In storage
2. Demonstrations on the use of Certified and Selected Seeds.
3. Demonstrations on the use of varieties resistant to diseases.
4. Demonstrations on the proper method and equipment for spraying.



II. Second Year.

1. Carry on same demonstrations as the first year.
2. Demonstrations on proper grading, packing and handling.
3. Cooperative demonstrations with soils and entomology.

III. Third Year.

1. Promote the use of community apparatus for disease control.
2. Promote the cooperative purchase of better seeds in carload lots.
3. Standardize the grade and pack in a community.

IV. Fourth Year.

1. Continue the Third Year Programs
2. Promote growers associations and make them cooperative if conditions justify.

V. Fifth Year.

1. Check up on the application of the practices recommended and assist in supervision of program.
2. Take up new demonstrations in a more or less semi-experimental way.
3. Develop better methods and greater efficiency.

"It is better to shoot and miss than never to have aimed." - E. A. Stockdyk.

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Horticultural Extension Literature Received  
During February, 1924.  
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Connecticut, Agricultural College, Storrs.

Grape Culture in Connecticut - Bul. No. 69, February 1924.

Georgia, State College of Agriculture, Athens.

Forest Trees of Georgia, How to Know Them - Bul. 291, Dec. 1923.

Maine, College of Agriculture, University of Maine, Orono.

Bordeaux Mixture - Cir. 85, December 1923.

Potato Seed Treatment - Cir. 86, December 1923.

Missouri, College of Agriculture, University of Mo., Columbia.

Strawberries in the Ozarks - How to get a stand - Cir. 137, Nov. 1923.

Demonstration Work With Potatoes - Cir. 138, January 1924.

Dormant Spraying of Fruit Trees - Leaflet 22, February 1924.

New York, College of Agriculture at Cornell University, Ithaca.

The Planting and Early Care of the Commercial Apple Orchard. -

Extension Bulletin No. 75, December 1923.

Oklahoma, Oklahoma Agricultural and Mechanical College, Stillwater.

Save Your Own Garden Seeds - Cir. 174, 1923.

Horticultural Food Budget - Cir. 176, 1923.

Irish Potato Club Instructions - Cir. 179, January 1924.

Vegetable Spray Calendar - Cir. 180, January 1924.

Vermont, College of Agriculture, Burlington.

Spindling Tuber - A new potato disease - Cir. 28, Oct., 1923.

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Prof. R. M. Koon of Delaware has been appointed Extension Professor of Vegetable Gardening in Massachusetts and will take over the work handled by Prof. H. F. Tompson, who resigned to engage in commercial gardening.

W. R. Beattie,

C. P. Close,

Extension Horticulturists.

